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ABSTRACT

The relationship between formal participation and control in community colleges was investigated by means of data collected from 656 faculty members and 139 administrators in five colleges which were identified as formally participative by a group of experts and in five colleges which were identified as formally non-participative. Organizational level analyses suggested that formal participation was related to increased faculty control over course-related activities and to a somewhat less hierarchical distribution of control over managerial decisions. Generally, the relationship between formal participation and the distribution of control was not strong; additionally, formal participation was not associated with an expansion of organizational control (i.e., an increase in the control exercised by members at all levels). Individual level analyses indicated that other factors besides the extensiveness of the participative committee structure were important in explaining members' perceptions of influence, particularly the extent to which committees were viewed as powerful by college members. Additionally, the quality of interpersonal relations was related to members' perceptions of influence. The results suggest that formal participative structures, in the absence of other power bases, may have marginal impact on the distribution of organizational control. (Author/JES)

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Formal Participation and Control in Community Colleges

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Formal Participation and Control in Community Colleges¹

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This presentation focuses on the relationship between formal participation and control in community colleges. Data were collected from faculty members and administrators in five colleges which were identified as formally participative by a group of experts and in five colleges which they identified as formally non-participative. Organizational level analyses suggest that formal participation is related to increased faculty control over technical (course-related) activities and to a slight decrease in administrators' control over those activities. Formal participation also seems to be related to a somewhat less hierarchical distribution of control over managerial decisions. In general, however, the relationship between formal participation and the distribution of control is not strong; additionally, formal participation is not associated with an expansion of organizational control (i.e., an increase in the control exercised by members at all levels). Individual level analyses indicate that other factors, besides the extensiveness of the participative committee structure, are important in explaining members' perceptions of influence. In particular, the extent to which committees are viewed as powerful or "authentic" by college members is associated with their perceptions of influence. Additionally, the quality of interpersonal relations is related to members' perceptions of influence. It is concluded that formal participation provides only one base for increasing the influence of members, and it should be supplemented or supported by other bases of power.

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Formal Participation and Control in Community Colleges

The way in which control or influence is distributed among members is an important issue in most organizations. This issue is particularly salient in educational organizations, and a significant amount of research and thinking has centered on participation and control in elementary and secondary schools, and in colleges and universities (Cross and Grambsch, 1968; Balldridge, 1971; Bridges, 1967; Belasco and Alutto, 1972). The role of faculty in the control of colleges has been an important issue throughout the century. Differences of opinions exist, however, about the desire and ability of faculty members to influence decisions (DeVries and Snyder, 1974). In community colleges, faculty members historically have not had the same concern for control as faculty have had in the four-year college and university--partly because the community college was for some time merely an extension of the public school system. However, as community colleges grew and as the unionization of teachers in the public schools increased, concern also increased among the faculty for involvement in the governance of their institutions (Bylsma, 1969). While the pressures for more faculty participation have been growing, relatively little is known about the way in which the organizational structures--formal or informal--are related to the distribution of control and influence in community colleges. This paper is designed to explore this issue and, more specifically, to investigate the relationship between formal systems for participation and the distribution of influence in community colleges.

Participation

A good deal of research concerning control has been organized around the concept of participation. Participation refers to a system of control in which all members determine in some degree the decisions of the organization. Different

amounts and kinds of participation can be distinguished including formal and informal. Formal participation is a system in which rules explicitly establish decision-making structures through which members contribute to decisions (Tannenbaum et al., 1974). The implicit, if not explicit norm underlying these rules is that members should and will influence the decision made in the organization. Members may participate directly, entering personally into deliberations that lead to binding decisions, or they may participate indirectly through representatives (Walker, undated). Furthermore, the participants may exert influence over only one or over several domains of the organization's functioning. For example, members may participate in decisions in the managerial or technical domains, or in both domains (Mohrman, Mohrman, and Cooke, 1976). Participation may concern system-wide issues of academic policy, budgeting and allocation of funds, and hiring policies; or, participation may concern the operational details of the classroom.

Formal participation is distinct from informal participation. The latter refers to an interpersonal process in which superiors are receptive to the ideas and suggestions of subordinates (e.g., Likert, 1961). Such informal participativeness may represent a recognition of the expertise of subordinates or it may be the result of social pressures for participation. It may also grow out of a commitment to "human relations" approaches, or it may be a natural and spontaneous outgrowth of the values of members. Informal participation often implies leadership that is supportive of subordinates and is sensitive to their needs. While formal participativeness is defined in terms of legally or formally established decision making structures, informal participativeness is defined in terms of style of leadership and sharing by superiors of their authority with subordinates.

Both formal and informal participation are assumed to mitigate, if not overcome, some of the problems of conflict and control in organizations. Participation potentially moderates the effects of hierarchy including the sharp differences in the satisfaction and adjustment of persons at different levels (Lowin, 1968; Tannenbaum et. al, 1974). Many organizational members derive satisfaction from participating in decision making and from exercising control (Vroom, 1960). For example, participation may satisfy individuals' needs for self-determination and independence. It may provide members with certain material or pragmatic rewards; a person who participates can influence decisions and perhaps affect policies in ways that are consistent with his/her own self-interests. Similarly, the process of participation can be intrinsically satisfying; it may involve group meetings where challenging and interesting topics are discussed and important decisions are made (Tannenbaum, 1968). Additionally, participation may imply that decisions are made by those members who are closest to, and best prepared to deal with, the decision situations. This may lead to improvements in organizational effectiveness which could, in turn, increase the satisfaction of members.

Participation and Control

Many of the functional consequences of participation seem to be directly tied to the extent to which participative systems actually afford lower echelon members control and influence. Mere involvement in decision making, without any real influence, is likely to provide members with few valued outcomes. Additionally, participation which is only nominal may lead to unfulfilled expectations and frustration on the part of members. A number of studies have indicated, however, that measures of participation are positively associated with measures of the control exercised by members at lower levels and, in some cases, the control exercised by members at all

levels of the organizations (e.g., Seashore and Bowers, 1970).

Informal participation potentially has the capacity to enhance the control exercised by organizational members at all levels of the hierarchy. "Participative management...", according to March and Simon, "can be viewed as a device for permitting management to participate more fully in the making of decisions as well as a means for expanding the influence of lower echelons in the organization" (1958, p. 54). The hypothesis that participation is related to the "total amount of control" in organizations has received support from studies conducted in a variety of organizations (Tannenbaum, 1968). Figure 1 illustrates this relationship in 31 geographically separated departments of a large service organization. Employees in these departments were asked, by questionnaire: "In general, how much say or influence do you feel each of the following groups (higher management, plant management, the department manager, and the men) has on what goes on in your department?" Answers were checked along a five-point scale from "little or no influence" to "a very great deal of influence". Figure 1 illustrates the "control graphs" generated by responses to this question for four different clusters of departments. Cluster 1 includes those departments in which the leaders were rated by the workers as highly participative; cluster 4 includes those departments which were not seen as (informally) participative. The more participative, and more highly controlled, departments were in this case the more productive of the group.

According to an analysis of these departments by Likert (1961), "The high performing managers have actually increased the size of the 'influence pie' by means of the leadership processes which they use. They listen more to their men, are more interested in their men's ideas and have more confidence and trust in their men." "Suggestions which subordinates offer make a

difference to these managers, and the subordinates in turn are responsive to their managers' requests. This informally participative behavior on the part of the managers tends to reduce the discrepancy between the control exercised by those at the top versus those at the bottom of the hierarchy. The slope of the control graph for the participative departments in Figure 1 is less negative (less steep) than that for the non-participative departments. Possibly more important, the total amount of control in the participative departments is greater than that in the non-participative departments. This finding is particularly interesting because in a large number of studies, total control has been shown to be related to various criteria of organizational effectiveness and member satisfaction. (Tannenbaum and Cooke, forthcoming).

Comparatively little research has focused on the relationship between formal participation and the structure of organizational control. In his review of formal systems for participation in Europe, Mulder (1971) has criticized the assumption "that participation of the less powerful in decision making processes results in a reduction of differences in power between the more powerful and the less powerful". Nevertheless, certain studies relevant to this issue have suggested that formal participation is associated with a less hierarchical distribution of control. This relationship has been demonstrated by, for example, Rosner's (1973) study of ten kibbutz plants representing five different industries. The formal participativeness of these plants was estimated on the basis of the number of decision making meetings held and the character of the decision making in these meetings; and the ten plants were classified into high, medium, and low participation groups.

Figure 2 shows the average control curves for each of the three sets of plants. The diagram illustrates that the slope of the control curve is significantly less steep for the high participation plants than for the low participation plants. In contrast to the low participation plants, the workers in the participative organizations have substantially greater influence and the higher management has somewhat less influence. The increased control of the workers is, to some extent, associated with a decrease in the amount of influence exercised by higher-level members. In general, the research on formal participation suggests that these systems may provide lower-echelon organizational members with some influence they might not otherwise have. Some of this increased control, however, may come at the expense of managers and administrators. While informal participation seems to increase the influence of members at all levels, it is possible that formal participation redistributes existing control and does not substantially increase the total amount of control in organizations. This assumption is supported by the results of an international study on hierarchy and control conducted by Tannenbaum and his associates (1974). Control in organizations was found to be less hierarchically distributed within those societies where formal systems of participation are prescribed by law; however, the total amount of control in these formally participative organizations was not substantially greater than that in formally non-participative organizations in other countries.

Formal Participation in Educational Systems

Formal systems for participation are becoming increasingly prevalent in educational systems, and this trend is particularly noticeable in higher education. College campuses have begun to resemble "loosely-joined federations" rather than communities and, in the process, the base of faculty authority has moved from informal interaction to the dispersed units (departments,

divisions, sub-colleges) that are the foci of disciplinary interests and to a more formal system of representative government. (Clark, 1965, p. 58; Clark, 1963). Perhaps indirect or representative systems of participation are seen by educators to be most appropriate for their otherwise "loosely-coupled" (Weick, 1976) or "structurally-loose" (Bidwell, 1965) organizations. Indirect and formal modes of participation do not imply a reliance on the hierarchy (as would informal participation through department heads) and may be consistent with the collegial norms professed by many faculty members. Furthermore, such formal structures as "cabinets" and "advisory committees" at the administrative and/or faculty levels have consistently been prescribed for improving the organizational adequacy of educational systems (e.g., Litchfield, 1959).

The formal structures which have emerged in educational systems have taken a variety of forms. Policy-making bodies (e.g., senates, councils), advisory and executive committees, and issue-specific committees (e.g., salary, instructional resources, and curriculum committees) have proliferated in many schools and colleges. While the implications of membership on such committees for individual faculty members has been studied extensively by Baldrige (1971), less is known about the organizational-level ramifications of these formal structures. Ideally, formal systems for participation would be expected to affect the structure of control in community colleges in three ways. First, formally participative structures should be associated with a more egalitarian distribution of influence in the colleges. Second, there should be greater consistency between the actual distribution of control and the distribution preferred by members in formally participative colleges than in colleges without these formal structures. Third, formal participativeness should be associated with a high amount of total control within the colleges; that is, members at all levels should exercise relatively great influence. While

there is only marginal evidence to support the validity of this third expectation, the relationship between formal participation and total control may be the most critical for college members. If formal participation is associated with a redistribution of control and not an increase in total control, this would imply that formal structures decrease the influence of certain groups within the organization. Under these circumstances, college members who see their influence as being vulnerable may be reluctant to support the establishment of formal committee structures.

The implications of formal participation for increasing the total amount of control in organizations may best be understood in terms of the manner in which these systems redistribute authority over the various types of decisions made in organizations. Three qualitatively different domains or subsystems of organizational decision making have been identified by Parsons (1958): the institutional subsystem which is concerned with the legitimacy of the organization within the context of the larger social system; the managerial subsystem which includes, among other things, the procurement, disposal, and allocation of organizational resources; and the technical subsystem which pertains to decisions regarding the core, or productive, operations of the organization. Influence over these domains of decision making may be distributed to members de facto as a consequence of the decision situations or organizational "realities" which they face. As a function of their location within the organization, members have direct access to information and make relevant decisions, and communicate to other members "processed" or "filtered" information which will set the premises for subsequent decisions. These information processing and decision making activities imply uncertainty absorption or reduction on the part of members, and the locus of this uncertainty absorption affects the influence structure of the organization.

(March and Simon, p. 165). This line of reasoning suggests that faculty members--who absorb uncertainty presented by the students--will exercise great technical control and that administrators--who deal with uncertainties regarding human, material, and financial resources--will exercise relatively great control over the managerial domain.

Viewed in this context, formal systems for participation can have two implications for organizational decision making. First, formal systems can legitimate the participation of those groups who are already absorbing the uncertainty associated with a particular decision domain; and second, these systems can legitimate the participation of those groups who would not otherwise be directly exposed to the uncertainty nor involved in decision making within the particular domain. Greater control in the organization therefore would be achieved to the extent that this broadened decision making authority provided a base for the absorption of more uncertainty by organizational members.

By providing a more adequate and legitimate base of power, formal participation potentially can increase the influence of those members who already exercise control over a particular domain of decision making. Formal structures, particularly in the form of committees, provide organizational decision makers with more information relevant to the decision and an opportunity to gain members' acceptance of the decision (Maier, 1967). In fact, participative systems have been regarded by many observers as a means for increasing the control of those already in positions of power (Mulder, 1971; Strauss and Rosenstein, 1970). While this often implies an increase in the control of those members at the top of the hierarchy, it can also imply an increase in the control of lower-echelon members--assuming that these members already are reducing some technical uncertainty. For example, formalization of faculty

authority over instructional matters may allow them to deal with issues that were previously "out of control" and thus may enhance their influence in this domain. Consequently, formal participation has the potential for increasing administrators' control over managerial decisions and the faculty's control over technical decisions by allowing these groups to reduce a greater amount of uncertainty. The magnitude of this increment in control may depend on the number of committees available for dealing with these issues. Additionally, perceptions of increased influence on the part of organizational members may be a function of their membership on these committees (Baldrige, 1971) and the perceived power of these committees.

Formal systems for participation may be less likely to increase the influence of organizational members over those decisions with which they would not otherwise be involved. While a committee structure can provide members with decision making authority, this authority may be an insufficient base for increasing faculty influence over managerial decisions, or for increasing administrators' influence over technical decisions. Faculty members, for example, may not be in direct contact with the forces underlying managerial decisions and therefore may be in a disadvantageous position to influence these decisions. Furthermore, faculty influence over certain managerial decisions might imply that administrators would have to "share" their present decision-making responsibilities. Faculty members may be able to add little to those decisions which the administrators are competent to make on a unilateral basis (i.e., there would be little opportunity for increased uncertainty absorption). Under these conditions, administrators might be reluctant to share their decision making responsibilities and faculty members may prefer not to spend time on these decisions. The implication is that if formal systems for participation are to expand total control, these systems must be perceived as

sufficiently authentic and powerful to permit faculty members to contribute something to the decisions. Committees which are responsible for complex and difficult administrative decisions may focus on matters which are beyond the control of individual administrators and, thus, offer the potential for greater uncertainty reduction and influence in the college.

In addition to being contingent upon the perceived authenticity of committees, the potential of formal participation for expanding members' influence may also depend on the quality of inter-group relations. Favorable faculty-administrator interpersonal relations may enhance faculty influence over managerial decision (both within and outside the context of the committee structure). A favorable interpersonal climate promotes a high level of communication, and this can provide faculty members with the information they need to contribute to managerial decisions. Additionally, positive inter-group relations imply that administrators may be personally responsive to the influence attempts of faculty members, and this responsiveness would supplement the legitimate base for faculty control established by the formal system. Favorable interpersonal relations could have similar implications for administrators' influence over technical decisions. Administrators who are on favorable terms with faculty members may be able to exercise influence over technical decisions either during committee meetings or outside of these meetings.

This analysis suggests that formal participation may have an impact on the total amount of control exercised by all members of the community college. An increase in total control, however, may depend on the extent to which members perceive the committees to which they belong as authentic structures for control. Additionally, expanded control may be contingent on the quality of interpersonal relations among groups within the college. In the remainder of

this paper, we explore the implications of formal participation by focusing on five formally participative and five formally non-participative community colleges. Data are analyzed to determine whether formal participation is associated with a less hierarchical distribution of control, a structure of control which is more consistent with members' preferences, and a greater amount of control exercised by all groups within the college. The relationship between formal participation and the total amount of control is investigated in detail by considering faculty and administrators' perceptions of their technical and managerial control in view of the formal participativeness of their colleges, the perceived power of the committees in their colleges, and the quality of faculty-administrator interpersonal relations.

Method

The Sample

The primary sampling objective was to select colleges which differed significantly in formal participativeness but which were reasonably similar along a number of other dimensions. Sample selection began with the identification of 59 community colleges in the Middle States and North Central Associations of Colleges and Secondary Schools. Colleges in certain states within these regions were excluded because of atypical state control structures which might have important implications for the distribution of influence within the colleges. Additionally, the colleges included in this preliminary sample were restricted to those which had enrollments of between 1,500 and 3,200 students, were between five and fifteen years old, and offered both transfer and technical programs.

The extent to which the colleges in this preliminary sample were formally participative was estimated by a group of "experts" who were knowledgeable about these institutions. These experts--consultants, researchers, community

college faculty member and administrators, members of professional associations, and state officials--were asked to rate on a five-point scale the participativeness of each college with which they were familiar. The experts were asked to base their ratings on "the extent to which members of the college--including faculty, students, administrative personnel, special services personnel, and non-professional staff--exercise some degree of formal control or influence in the college, exclusive of collective bargaining" (Cooke and Tannenbaum, 1976).

Five pairs of colleges were selected on the basis of these ratings, each pair consisting of one formally participative and one formally non-participative organization. Colleges were matched and paired along a number of criteria: size, age, full-time to part-time faculty ratio, and full-time to part-time student ratio. Additionally, colleges were paired on the basis of location (urban/rural) and faculty-student ratios, though these criteria were given secondary consideration. The five pairs did not necessarily represent the most extreme schools along the participativeness scale. In some cases, less extreme schools were selected to provide acceptable matches.

Within colleges, the sample included all administrators (president, vice-presidents, deans, department heads, etc.), all full-time faculty, and randomly-selected samples of part-time faculty and of students. Because the pattern of relationships exhibited by students differed significantly from those of other members of the organizations, student responses will not be considered here.¹ Relatively high response rates were obtained: 92.1 percent for faculty and 92.1 percent for administrators. (Generally higher response rates were realized in the participative than in the non-participative colleges: 95.2 percent for faculty and administrators of participative

¹ See Cooke and Tannenbaum (1976) regarding student-level results.

colleges versus 89.2 percent for non-participative colleges.) The results presented in this paper are based on data provided by 656 faculty members and 139 administrators.

Basic Analysis Procedure

A two-stage analysis procedure was used in preparing this paper. First, analyses were performed at the organizational level to examine the relationship between formal participation and distribution and total amount of control in the colleges. The distribution of control was examined in terms of two domains of influence: technical and managerial/institutional. Second, analyses were performed at the individual level to explore further the relationship between formal participation and total control. These analyses included individuals' perceptions of control as the dependent variable. At the individual level, separate but parallel analyses were performed for faculty members and department heads.

The Measures: Organizational Level

An index of formal participation was constructed to represent the extent to which the colleges provide opportunities for members at all levels to be formally involved in organizational decision making. Two relatively independent measures were used to construct this index. The first consisted of the ratings of the experts (the same ratings which were used for the selection of the sample). The second was based on the number of governance committees which were documented and described in the handbooks and manuals provided to the students and faculty in each college. To combine these measures, the number of committees was pro-rated over a range equal to that of the expert ratings. A college's score on the formal participation index was the mean of its scores along these two measures.

Data on the other organizational-level variables were collected by means

of self-administered questionnaires. These questionnaires were patterned after those developed by the Institute for Social Research for studies conducted in business and industrial organizations (the Survey of Organizations, Taylor and Bowers, 1972; the Michigan Assessment of Organizations, National Quality of Work staff, Survey Research Center, 1974; and the Hierarchy in Organizations questionnaire, Tannenbaum et al., 1974). Additionally, selected items from surveys designed especially for educational systems were modified and incorporated into this instrument (Baldrige, 1973; Coughlan, Cooke, Mohrman, and Mohrman, 1973; Rossmeyer and Jenkins, 1972).

A modified version of the "control-graph" method (Tannenbaum, 1968) was used to collect data on the distribution of influence in the ten colleges. Faculty and administrators were asked, for example, "How much influence do the following groups or person(s) [faculty, department heads, deans, president] actually have in determining the major goals of this college?" Response options ranged along a five-point scale from "very little influence" to "very great influence." Similar questions were asked to assess the distribution of managerial influence ("How much influence do [the groups] have on the day-to-day administration of the college?") and technical influence ("How much influence do [the groups] have on course activities?"). Additionally, a complementary series of questions was asked to ascertain the amount of influence the college members felt that the various groups should exercise over institutional goals, managerial decisions, and course (technical) activities.

Responses to the questions concerning "day-to-day administration" and "college goals" were highly consistent, and these responses were combined to represent managerial/institutional control. Each individual's responses to the two questions (e.g., concerning the faculty's managerial and institutional

influence) were averaged, and then the average of this score was calculated for all respondents within a college. Similarly, the responses of all people within a college regarding the "course activities" influence of a particular group were averaged to represent technical control. Responses to these questions were aggregated to the organizational level because the objective was to estimate the real amount of influence exercised by each group. Viewed in this way, within-college variation in organization members' estimates can be considered error variance. This error variance is reduced by working with the arithmetic mean for all respondents within a college.

A rough measure of the slope of the control graph for each college was constructed simply by subtracting that college's measure of president control from that of its faculty. The total amount of control for an organization was the sum of the measures of control for its president, deans, department heads, and faculty. The slope and total amount of both managerial/institutional and technical control were calculated for each college.

The Measures: Individual Level

Measures of faculty members' and department heads' perceptions of the managerial/institutional and technical control of their own groups were obtained from the same questions used to measure the distribution of organization control. The indices for faculty members were constructed from the questions about faculty control in the two domains, while the indices for department heads were constructed from the questions dealing with department head control. Unlike the organizational-level measures, these measures were not intended to estimate the "real" level of control of the group in a particular domain; rather, they were intended to estimate the individual's perception of the control of his/her own group.

We considered the perceived Authenticity or Power of the participative

committees to be a function of the importance of the decisions made by these committees and the probability that these decisions will be implemented. Two questions were used to construct an index reflecting members' perceptions of the power of formal committees:

a. In group or committee meetings in this college where decisions are made or problems are solved, to what extent are the decisions restricted to unimportant ones?

b. . . . to what extent are the decisions subsequently ignored?

Response options ranged along a five-point scale from "not at all" to "a very great extent."¹ We assumed that, in responding to these questions, respondents would evaluate the committees most salient to them (i.e., the governance committees on which they held membership).

Interpersonal Relations between faculty members and the department heads were measured through the use of four items:

- a. To what extent are the [faculty members/department heads with whom you come into contact] friendly and easily approached?
- b. To what extent do you feel the [faculty members/department heads with whom you come into contact] have confidence and trust in you?
- c. To what extent do you have confidence and trust in the [faculty members/department heads with whom you come into contact]?
- d. To what extent do the [faculty members/department heads with whom you come into contact] take into account your opinions and suggestions?

Response options ranged along a five-point scale from "not at all" to "a very great extent." The index for faculty members consisted of these four questions in reference to the department heads; and the index for department heads was based on these questions in reference to the faculty. This procedure generated a measure of each faculty member's and department head's estimate of their own relationships with the other group. This measure is a general one,

¹ Both these scales were reversed before any calculations were performed.

designed to measure the overall nature of the relationship; it includes elements of communication, mutual trust, and informal participation.

Results

The results to be presented in this section are organized in terms of the two levels of analysis--the organizational and the individual level. The organizational level results focus on the differences between the two types (formally participative vs. formally non-participative) of colleges in terms of managerial/institutional and technical control. The individual level results focus on college members' perceptions of their own group's (faculty or department head) influence. Independent variables for individual level analyses include the formal participativeness of the college, the power or authenticity of committees, and interpersonal relations.

Organizational Level Results

Formal participation and the structure of managerial/institutional control. An overview of the differences between the formally participative and formally non-participative colleges in terms of managerial/institutional control is presented in Figure 3. The control graphs show a negative slope for actual managerial/institutional control, with administrators having considerably more control than faculty in both participative and non-participative colleges. The slope, however, appears to be slightly less negative for the formally participative colleges.

Students' t-tests were performed to test the null hypothesis that there were no differences between participative and non-participative colleges in managerial/institutional control. No significant differences were found for the president's, deans', department heads', or faculty's control. (The means on which these tests were performed are presented in Figure 3 in control graph form.) Nor were there any differences between the two types of colleges in

total amount of managerial/institutional control. The distributions (slopes) of control were not significantly different according to the t-test, although the correlation between formal participativeness and distribution of managerial/institutional control was significant ($r = .678$, $N = 10$, $p < .05$).

In general, faculty members in participative colleges have more (but not significantly more) managerial/institutional control than those in non-participative colleges, but upper level administrators have only as much, or even less, control than their counterparts in non-participative colleges. Except at the faculty level, where the difference is observable but not significant, there is little difference between the two types of colleges in the "ideal" or preferred distribution of managerial/institutional control. Because the desired distribution of control is so equalitarian for both types of colleges, the participative colleges come closer (on the average) to their desired distribution.

Formal participation and the structure of technical control. The distribution of influence shown by the control graphs for the technical domain is quite different from that for the managerial/institutional domain (Figure 4). Here the slope is highly positive for both types of organizations, with faculty members having considerably more technical control than upper level administrators. The slope is slightly more positive (i.e., steeper) for participative colleges, both according to the graph and to a t-test comparing the slopes of the colleges ($p < .01$). In non-participative colleges, faculty members have slightly less--and administrators considerably more--technical control than do their counterparts in participative colleges. These differences are shown by t-tests to be significant for the deans' control ($p < .05$) and for the president's control ($p < .05$). The relatively low technical influence of these administrators implies a contraction of technical control in the

participative colleges. A t-test indicates that the total amount of technical control in the participative colleges is significantly less than that in the non-participative colleges ($p < .05$).

The ideal distributions of technical control differ somewhat for the two types of colleges. Compared to the participative colleges, members of the non-participative colleges preferred slightly more technical control for the department heads, deans ($p < .05$), and the president. Ideal faculty control is greater than actual faculty control for both types of colleges; however, this discrepancy is slightly greater for the non-participative colleges. The same is true, though to a lesser extent, for department heads. The desired amount of control for deans is about equal to their actual control in both formally participative and formally non-participative colleges. Additionally, actual control is greater than desired control for the presidents of non-participative colleges. In general, the discrepancies between ideal and actual technical control do not seem to differ in magnitude for the two types of colleges.

Individual Level Results

A series of stepwise multiple regressions was performed using as dependent variables individuals' perceptions of their own group's (faculty or department heads) control. Separate regressions were run for perceived technical control and perceived managerial/institutional control. Additionally, separate regressions were run for the two sets of respondents (faculty and department heads). All of the regressions included the organizational level measure of formal participation as an independent variable. The regressions also included the respondent's perceptions of the power of committees in his/her college or the quality of his/her interpersonal relations with faculty members (for department heads) or department heads (for faculty members).

Formal participation was always entered first, followed either by perceived power of committees or by perceived interpersonal relations. The final predictor was an interaction term, constructed by multiplying formal participation by the other predictor (as suggested by Cohen, 1970). Significance tests were performed at each step, testing the null hypothesis that the step had no additional effect on the R^2 of the equation.

The results are presented in Tables 1 and 2. Each row represents a dependent variable; each column a predictor. The figures in each column represent the change in R^2 due to the addition of that predictor. The last column presents the R^2 's of the equation with all three predictors included (i.e., the sums of the first three columns).

Considering first the results for formal participation and committee power (Table 1), we find that for department heads formal participation by itself is not related to perceptions of either type of control. Perceptions of committee power, however, have a substantial independent effect on department head perceptions of their managerial/institutional influence. There also is a statistically significant interaction effect between formal participation and committee power on department heads' managerial/institutional influence. This interaction effect indicates that the relationship between the power of committees and perceived influence is greater in the formally non-participative colleges. The final model predicting managerial/institutional influence explains over 28 percent of the total variance.

For faculty members, there are statistically significant relationships between formal participation and both technical and managerial/institutional influence, though the actual amounts of variance shared are not impressive. A considerably larger, independent effect is exhibited by perceived committee power on faculty members' perceptions of their managerial/institutional control.

A small but significant relationship exists between perceived authenticity and perceptions of technical control.¹ Furthermore, authenticity and formal participativeness have an interactive effect on faculty perceptions of their technical influence; this suggests that the relationship between the power of committees and technical influence is greater in the non-participative colleges. Thus, perceived authenticity (committee power) has strong independent main effects on managerial/institutional control, both for faculty members and department heads. Though significant for faculty members, the main effect of perceived authenticity on technical control is not as great. However, perceived authenticity and formal participativeness of the organization show an interaction effect on faculty members' perceptions of their technical control, as well as on department heads' perceptions of their managerial/institutional control.

Turning now to formal participation and interpersonal relations (Table 2), we see that interpersonal relations with faculty have a strong independent main effect on department heads' perceptions of their own technical control. However, department heads' interpersonal relations with faculty showed no relationship to their perceived managerial/institutional control. No interaction effects emerged for department heads.

Faculty members' perceptions of both types of control were related significantly to their interpersonal relations with department heads. These measures of interpersonal relations, however, were more strongly related to the faculty's managerial/institutional control than to their technical control.

¹The amount of variance shared between committee power and faculty technical influence may be small due to a "ceiling" effect. Most faculty members perceived high influence over the technical domain, and there was not much variance along this measure.

Thus, the data show that department heads' interpersonal relations with faculty are strongly related to their perceived technical control, whereas faculty members' interpersonal relations with department heads are strongly related to their perceived managerial/institutional control. Interpersonal relations with department heads are somewhat less strongly related to faculty members' perceptions of their technical control; and interpersonal relations with faculty are unrelated to department heads' perceptions of managerial/institutional influence. Interpersonal relations with the "other group," therefore, are more important for explaining influence over the "other domain" of decision making than for explaining influence over their own domain.

Finally, zero-order correlations for all variables included in these regressions are presented in Table 3 (department heads) and Table 4 (faculty). It is important to note that the correlations between formal participation and the perceived power of committees are not very high (faculty $r = .14$; department heads $r = .12$). Additionally, interpersonal relations are virtually independent of formal participation (faculty $r = .00$; department heads $r = -.04$).

Discussion

Some of the results presented above are consistent with our expectations concerning formal participation, but others are not. Similarly, some of the findings suggest that formal participation is a viable mechanism for changing the structure of control in community colleges, but other findings do not provide empirical support for the efficacy of these systems. Two results, in particular, may be viewed as "positive" from the perspective of those who believe in the viability of these formal systems. First, formal participation is associated with a somewhat more (but not significantly more) equalized distribution of control over managerial/institutional decisions. Second, the

"actual" distribution of control (in terms of the managerial/institutional domain) is more consistent with the distribution preferred by the members in the formally participative colleges than in the colleges which lack extensive formal arrangements for participation.

Three findings suggest that formal participation may not be associated with the type of control structure that some of its proponents may desire. First, administrators in the formally participative colleges have somewhat less influence over technical decisions than do administrators in the formally non-participative colleges. To the extent that participation is defined in terms of shared influence, this finding implies a decrease in participation vis a vis the administrators' involvement in the technical domain. Second, formal participation is not associated with any appreciable increase in total control over managerial/institutional decisions, and is associated with a slight decrease in the control exercised by all members over technical decisions. These findings are consistent with some of the previous research on formal participation which suggests that these formal systems, unlike informal or interpersonal participation, are not necessarily associated with an expansion of the "influence pie." Third, formal participation is not strongly associated with the perceived authenticity or power of the committees, nor is it associated with the quality of interpersonal relations. There is no compelling theoretical or pragmatic reason why formal systems should be positively related to favorable interpersonal relations; in fact, it could be argued that formally participative structures are more likely to be established in those colleges which lack a positive interpersonal climate and informal participation. However, it seems that "objective" measures of the formal participativeness of the colleges should be highly correlated with members' perceptions of the authenticity of the committee structures. Nevertheless, the most

formally participative colleges (in terms of the experts' ratings and the number of documented committees) were not necessarily those in which the members perceived the committee structure as highly authentic.

The finding that formal participation is not strongly related to either authenticity or to interpersonal relations is particularly interesting because the latter two variables explain more of the variance in members' perceptions of influence than does formal participation.¹ The perceived power of committees and, to a lesser extent, favorable interpersonal relations are associated with perceptions of high influence on the part of both faculty members and department heads. This implies that if committees are perceived as powerful and authentic mechanisms for participation, the amount of influence perceived by all groups in the organization is greater. However, since many members of the more formally participative colleges did not view the committee structures as authentic, the average total control for the formally participative colleges was not significantly greater than that for the non-participative colleges.

These somewhat ambiguous and inconsistent findings concerning formal participation may best be explained by considering the differences between authority and control in organizations. Formal participation implies that various groups within a college are provided with some legitimate authority over a spectrum of organizational decisions. Assuming that our measures of formal participation are adequate, we would expect that the formally participative colleges provided more members with more authority than did the formally non-participative colleges. This formal authority serves as a base of power and apparently is sufficiently strong to provide faculty in the participative

¹ This result may be due, in part, to a methods effect. Interpersonal relations and authenticity were measured by means of the same survey as was perceived influence, while formal participation was measured independently. Nevertheless, the findings seem sufficiently strong to indicate that something beyond a pure methods effect is operating.

colleges with some increase in control. However, the authority may not have been sufficient to imply either perceptions of high authenticity or perceived influence on the part of all organizational members. The problem may be that legitimate authority is only one base of power in social systems, and it is a base which is not always associated with an expansion of control.

French and Raven (1959) have identified five different bases of social power: reward, coercive, legitimate, referent, and expert power. Formal systems for participation are primarily concerned with legitimate power--the organization, or a legitimizing agent for the organization, delegates decision-making authority to members or groups of members. This legitimate authority, in and of itself, does not necessarily imply that committees will be powerful or that they will lead to greater total control. The authority merely gives a participative body the "right" to influence decisions; for various reasons, the committee may be unable or unwilling to exercise that right.

The potential of a formal participative system for expanding control may depend on the extent to which legitimate authority over particular decisions is delegated to groups which possess the expertise to deal with those decisions. If group members have the required expertise, the committee will be in a position to absorb uncertainty and to exercise control. Our findings suggest that the control of department heads over managerial/institutional decisions is particularly high when their committees are perceived to be powerful. Similarly, faculty members' perceptions of the power of committees explains some of the variance in their perceived technical influence. These findings could be interpreted to suggest that membership in a powerful committee can be used by the individual members to enhance their own actual or perceived influence. This interpretation assumes that committees, in and of themselves, possess a certain amount of control or power; however, it could

also be argued that the committees have only authority and that the expertise of the members activates and enhances the power of the committees. For example, administrators serving on managerial-oriented committees possess the expertise to absorb managerial uncertainty, to contribute to complex decisions, and to reach decisions which are likely to be implemented in the college. In this case, the administrators may perceive greater managerial/institutional influence due to their membership on this powerful committee--but the power of the committee may have resulted from the administrators' expertise in the first place. Legitimate power has not been found to be associated with the total amount of control in organizations; expert power, however, has been shown to be a base which is strongly associated with total control (Bachman, Powers, and Marcus, 1968). If legitimate power is delegated to authorize the use of expertise, the result may be a significant increase in uncertainty absorption and decision-making influence.

The bases of power analogy also can be used to explain the relationship between interpersonal relations and perceived influence. If people are attracted to one another and interact in a positive manner, the greater their identification with each other and the higher the referent power (French and Raven, 1959). Under these conditions, members of committees are more likely to be open to each other's influence, and this can lead to an increase in the total control exercised by the committee. Additionally, favorable interpersonal relations may be associated with open communication, and this can provide members with the information they need to contribute to decisions. For example, a faculty member who perceives favorable interpersonal relations with department heads may be privy to information needed to contribute to managerial decisions. (This information could be provided by administrators who hold membership on a committee with the faculty member or by administrators

who do not hold such membership.) Finally, positive interpersonal relations may increase the probability that the decisions or recommendations made by a committee will be implemented. If committee members view the people in the college to be open, approachable, and responsive to their opinions, it seems likely that the college members will be receptive to committee decisions.

The implication is that if favorable interpersonal relations exist within a community college, formal participation can act to mobilize the potential contribution of these relations to decision making and uncertainty reduction. In this manner, the referent base of power can be reinforced by a legitimate base to increase the amount of influence exercised by organizational members. This conclusion is somewhat consistent with the finding that interpersonal relations explain some of the variance in the technical influence perceived by department heads, and some of the variance in the managerial/institutional variance perceived by faculty members. (It is noted, however, that the interaction between interpersonal relations and formal participation explains little variance in perceived influence. This suggests that interpersonal relations promotes influence outside the context of the formal committee structure.)

This paper was not intended to explore the relationship between power bases and formal participation, and our data do not lend unambiguous support for this interpretation. Nevertheless, the results at least suggest that power bases should be considered when exploring the effects of formal participation. Formally participative structures redistribute only authority and, in the absence of other power bases, may have marginal impact on the distribution of organizational control and even less impact on the total amount of control exercised by all organizational members. Formal participative structures may be established in community colleges in a haphazard

manner, with little consideration of the organizational context and other factors which may have implications for the effectiveness of the committees. While our data indicate some differences in control between the formally participative and non-participative colleges, these differences may be marginal in view of the time and energy members could be devoting to committee work. Our results suggest that the problems of control and hierarchy in community colleges can not be completely solved through the creation of an endless and complex array of committees. In addition to establishing committees, it seems necessary to consider the other bases of power within the college which can be used to support or supplement the authority base provided by the formal structure.

Table 1

The Effects of Formal Participation and Power of Committees
on Department Heads' Perceived Control

	Increment in R ² due to Formal Participation	Increment in R ² due to Power of Committees	Increment in R ² due to Interaction	Total R ²
<u>Department Heads</u> (N = 90)				
-Managerial/institutional control	.0131	.2200***	.0508*	.2839***
-Technical control	.0244	.0379	.0023	.0645
<u>Faculty</u> (N = 654)				
-Managerial/institutional control	.0327***	.1611***	.0012	.1950***
-Technical control	.0113**	.0263***	.0080*	.0456***

* p < .05

** p < .01

*** p < .001

Table 2.

The Effects of Formal Participation and Interpersonal Relations
on Faculty Perceived Control

	Increment in R^2 due to Formal Participation	Increment in R^2 due to Interpersonal Relations	Increment in R^2 due to Interaction	Total R^2
<u>Department Heads</u> (N = 90)				
-Managerial/institutional control	.0131	.0400	.0041	.0572
-Technical control	.0244	.0998**	.0102	.1344**
<u>Faculty</u> (N = 654)				
-Managerial/institutional control	.0327***	.1130***	.0000	.1457***
-Technical control	.0113**	.0705***	.0015	.0834***

*
p < .05

**
p < .01

p < .001

Table 3

Intercorrelations of Predictors and Influence Variables: Department Heads
(N = 90)

(1) Formal participation	1.0				
(2) Power of committees	.1430	1.0			
(3) Interpersonal relations	-.0413	-.0150	1.0		
(4) Managerial/institutional control	.1143	.4806	.1951	1.0	
(5) Technical control	-.1561	.1704	.3221	.3843	1.0
	(1)	(2)	(3)	(4)	(5)

Table 4

Intercorrelations of Predictors and Influence Variables: Faculty Members
(N = 654)

(1) Formal participation	1.0				
(2) Power of committees	.1162	1.0			
(3) Interpersonal relations	.0024	.2845	1.0		
(4) Managerial/institutional control	.1807	.4183	.3362	1.0	
(5) Technical control	.1061	.1728	.2650	.2665	1.0
	(1)	(2)	(3)	(4)	(5)

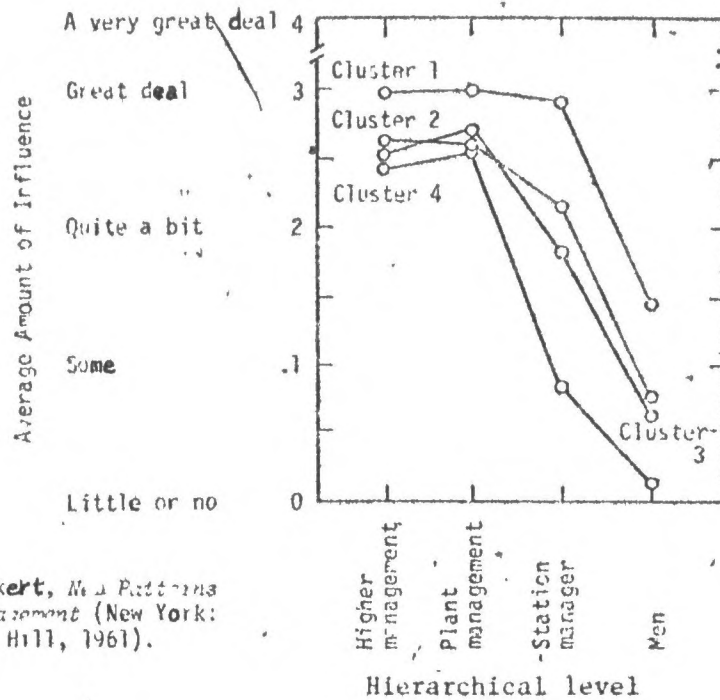


Figure 1. The average amount of influence exercised by different hierarchical levels as seen by the men in different clusters of departments differing in participativeness.

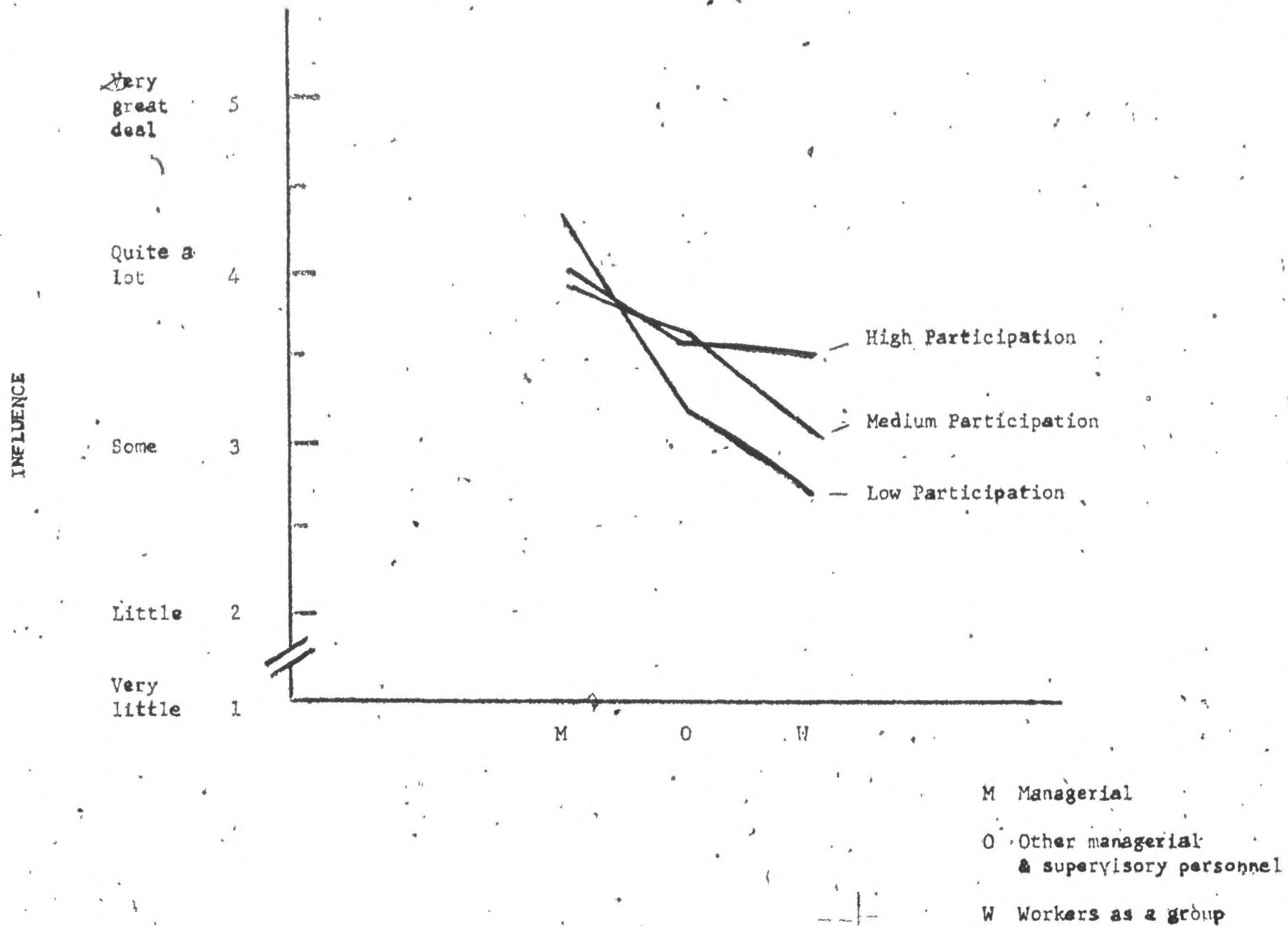


Figure 2. The distribution of influence in three types of plants¹

¹M. Rosner, Self-management in kibbutz industry. Center for Social Research on the Kibbutz, 1973.

CONTROL GRAPH--MANAGERIAL/INSTITUTIONAL CONTROL

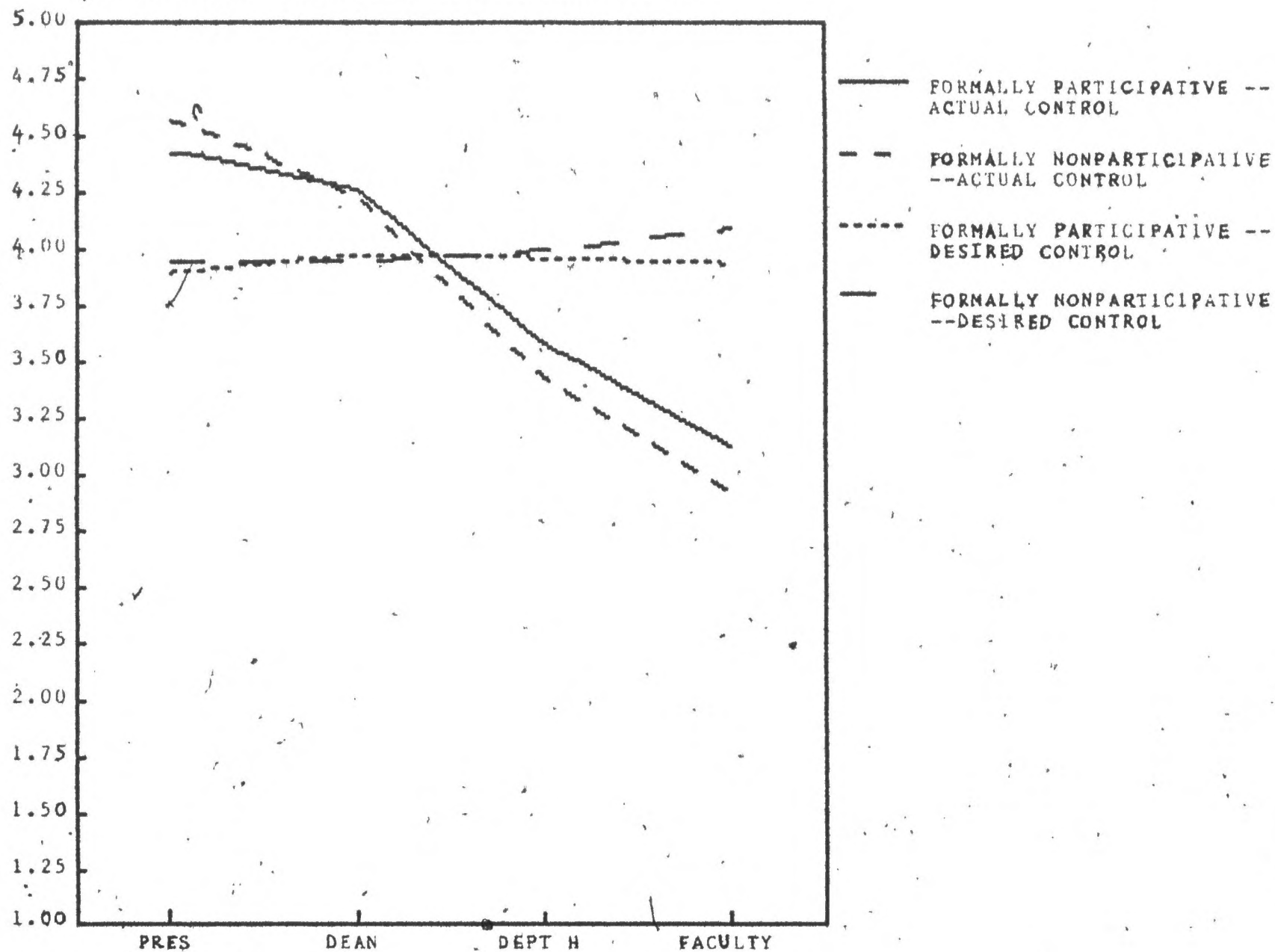


Figure 3

CONTROL GRAPH--TECHNICAL CONTROL

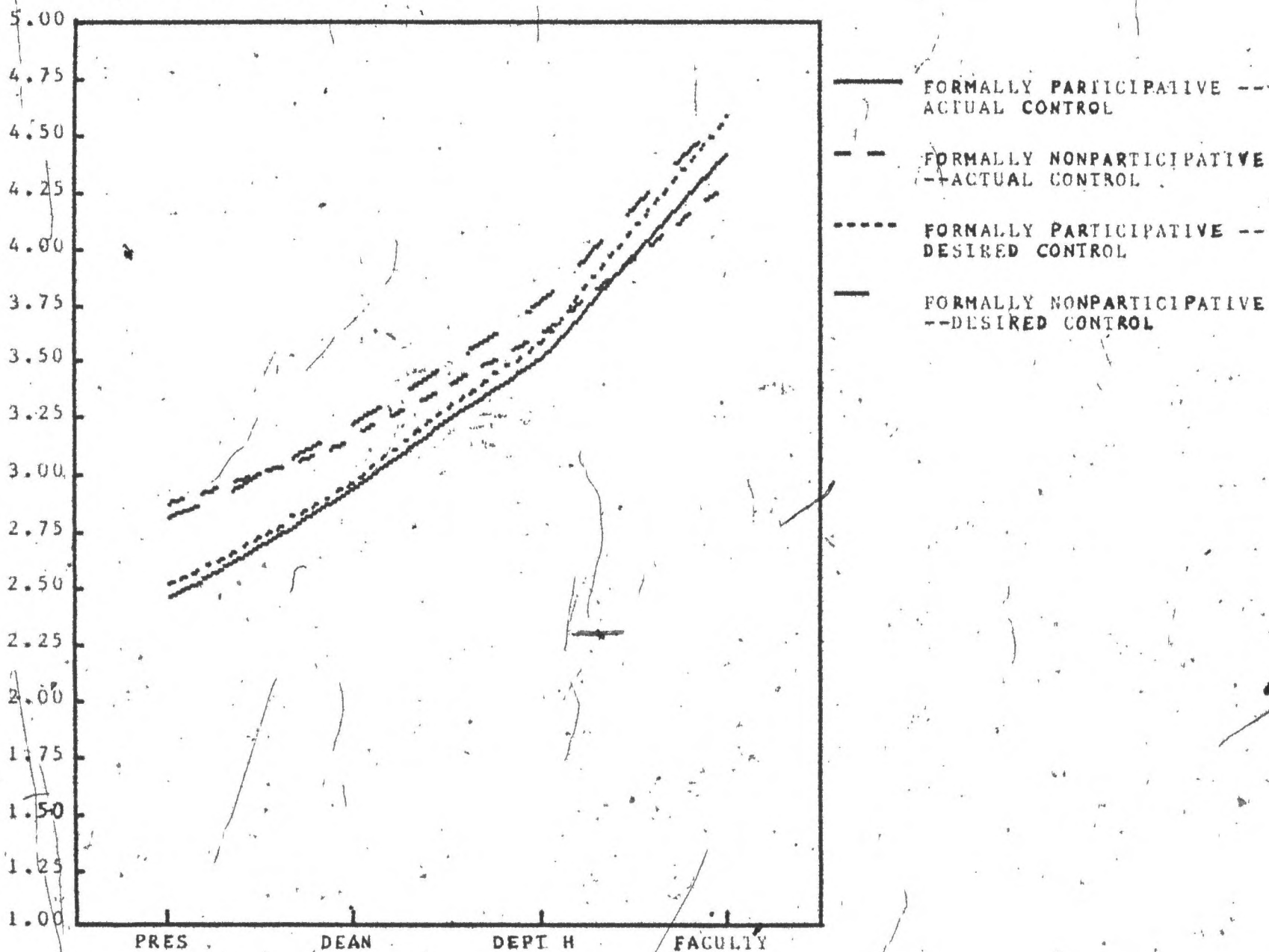


Figure 4

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